



Composite Specialty Bearings

1 Scope

1.1 Material Description. This standard covers laminated composite specialty bearings as used in automotive components.

1.2 Symbols. Not applicable.

1.3 Applicability. Hinging: Hoods, Decklids, Liftgates and Doors.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

ASTM A666

ISO 11014-1

SAE J2329

2.2 GM Standards/Specifications.

GMW2

GMW3059

GMW15192

GMW17699

GMW3044

GMW4700

GMW17698

2.3 Additional References.

- Safety and Industrial Hygiene (S&IH) Technical Standard (TS), S&IH TS 3.4-160-02

3 Requirements

See Table 1 for product requirements.

Table 1: Product Requirements for Bearings

Code	Liner Construction	Paint Free Additives in Liner (Optional)	Typical Thickness (Millimeters) Note 1	Substrate Material Note 2, Note 3	Typical Applications	Typical Bearing Load (Megapascals) Note 4	Electrically Conductive
A	Filled Polytetrafluoroethylene (PTFE) with a WOVEN BRONZE welded mesh	No	0.75, 1.00	Steel	Door Hinges Spring Hook Pivots	180 to 220	Yes
A1	Filled PTFE with a WOVEN ALUMINUM welded mesh	No	1.00	Steel	Door Hinges	180 to 220	Yes
A2	Filled PTFE with a WOVEN ALUMINUM welded mesh	No	1.00	Aluminum	Door Hinges	180 to 220	Yes
A3	Filled PTFE with a WOVEN STAINLESS STEEL welded mesh	No	0.96	Stainless Steel	Tailgates and Exterior Hinging Products High Corrosion Environments	180 to 220	Yes

Code	Liner Construction	Paint Free Additives in Liner (Optional)	Typical Thickness (Millimeters) Note 1	Substrate Material Note 2, Note 3	Typical Applications	Typical Bearing Load (Megapascals) Note 4	Electrically Conductive
B	Filled PTFE tape with a STRETCHED BRONZE mesh	Yes, with code Paint Free Red (PFR) or Paint Free Beige (PFB) Note 5, Note 6	0.75, 1.00	Steel	Door, Hood, Decklid Hinges	150 to 200	Yes Note 7
B1	Filled PTFE tape with a STRETCHED ALUMINUM mesh	No	0.75, 1.00	Steel	Door, Hood, Decklid Hinges	150 to 200	Yes
B2	Filled PTFE tape with a STRETCHED ALUMINUM mesh	No	0.75, 1.00	Aluminum	Door, Hood, Decklid Hinges High Corrosion Environments	150 to 200	Yes
C	Filled PTFE on a PROFILED BRONZE clad steel	No	0.50, 0.75, 1.00	Steel	Door Hinge Rollers High Impact Systems	400	No
C1	Filled PTFE on a PROFILED BRONZE clad steel	No	0.50, 0.75, 1.00	Steel	Door Hinges, Hood Hinges, Trunk Hinges, Liftgate Hinges, Door Check Pivot, Seat Systems, Tilt Steering	137	Yes
D	Filled PTFE with a WOVEN BRONZE welded mesh	Yes, with code PFR or PFB Note 5, Note 6	0.48	None	Profile Door Hinges	100 to 140	Yes Note 7
D1	Filled PTFE with a WOVEN ALUMINUM welded mesh	No	0.48	None	Profile Door Hinges	100 to 140	Yes
D2	Filled PTFE with a WOVEN STAINLESS STEEL welded mesh	No	0.48	None	Profile Door Hinges High Corrosion Environments	110 to 140	Yes
D3	Filled PTFE with an EXPANDED METAL BRONZE MESH	No	0.50	None	Door Hinges, Hood Hinges, Trunk Hinges	49	Yes
E	Filled PTFE tape ONLY	Yes, with code PFR or PFB Note 5, Note 6	0.50, 0.75	Steel	Seats, Hood, Decklid Hinges, Wiper Arm Pivot	180 to 200	Yes, with code CN Note 8
E1	Filled PTFE tape ONLY	Yes, with code PFR or PFB Note 5, Note 6	0.50, 0.75	Structured Aluminum (Dimpled)	Door, Hood, Decklid Hinges High Corrosion Environments	180 to 200	Yes, with code CN Note 8
F	Filled and THINNED PTFE tape with a STRETCHED BRONZE mesh	Yes, with code PFR or PFB Note 5, Note 6	0.50, 1.00	Steel	Assist Steps Door Hinge Rollers High Impact Systems	240 to 300	Yes Note 7

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